STRATEGY TWO: PRIORITIZING WHERE AND WHEN TO ACQUIRE WATER RIGHTS

The authorization to spend state and federal dollars on water rights acquisitions are limited to the 16 critical basins identified earlier, these basins are characterized by:

- **The presence of salmon, steelhead or trout stocks** listed under the federal Endangered Species Act as either endangered (in danger of extinction) or threatened (determined likely to become endangered within the foreseeable future).
- **Inadequate instream flows as major factors contributing to the loss** of salmon population and limiting their recovery.

The causes of low flows vary by basin and streams but are usually due to either one or both of the following factors:

- **Over-allocation**, where legally-authorized water diversions and withdrawals have reduced stream flows well below the needs of fish. In some cases, streams go dry completely during the summer and early fall.
- **Physical and hydrological alterations due to extensive urbanization, land development and high water demand.** Snohomish County, for instance, experienced a 45 percent increase in urban land use between 1982 and 1992. Stream flows in urban areas are typically high during rainy, winter months and usually low during the summer, contributing to the poor status of salmon.

Limited resources and the need to produce effective and efficient results require the Washington Water Acquisition Program to be strategic and focused where and when water is needed. Therefore, it is necessary to:

- Evaluate opportunities in each of the 16 critical basins.
- Identify rivers, streams, and stream reaches within the critical basins where acquisition must be targeted.
- Develop criteria for prioritizing and approving water right acquisition proposals.

I. Water acquisition opportunities in the 16 critical basins

While the critical basins are not prioritized, opportunities for funding acquisitions in those basins will be based on the following considerations:

- **Diversity of fish species and stock assemblages present** and their designated health status. Those streams with the greatest numbers of stocks and those with most stocks designated as being depressed, critical, threatened or endangered will receive highest priority.
- **Stream flow conditions and/or associated high water temperature** limiting salmon populations caused mainly by legally-authorized surface water withdrawals.
- **The necessity to restore stream flows in the basin** has been recognized by watershed planning groups and/or the state Department of Fish and Wildlife, affected Indian Tribes and the federal National Marine Fisheries (NMFS) and U.S. Fish and Wildlife (USFWS) services.

- **There are opportunities for water rights acquisitions** based on number of water diversions and willingness indicated by some water-right holders.
- **Local involvement in salmon recovery planning and restoration activities**, as expressed by the existence of lead entities under the 1998 Salmon Recovery Planning Act (2496) and/or local watershed planning units under the 1998 Watershed Planning Ac (2514).

II. Opportunities for acquisitions in rivers and streams *within* the 16 critical basins

1. Criteria for targeting/prioritizing rivers and streams:

- Number of Endangered Species Act-listed salmon species as threatened or endangered or identified as depressed or critical by state Department of Fish and Wildlife and various tribes in the Salmon and Steelhead Stock Inventory (SASSI).
- The stream is a migration corridor and/or provides important spawning, and rearing habitat for anadromous and resident salmonids.
- Extreme low flow conditions and/or associated high water temperature are primary factors limiting or causing salmon population decline within the stream.
- Current surface water diversions and withdrawals from the stream have resulted in extreme low flows in the stream (dewatering by irrigation, municipal, industrial use, or during water storage periods), or stream flows during critical life history stages (smolt out-migration) for salmonids is insufficient for survival.
- Size of the stream is well-suited for water rights acquisitions.
- Instream flow recommended targets can be reasonably expected to be achieved.
- Water rights acquisitions are most likely to contribute to the survival of threatened or endangered fish stocks, or stocks designated by SASSI as at risk.
- There is potential for "net surface water savings" from physical or operational improvements of irrigation systems in the area.
- Willingness and interest from water-right holders to forgo irrigation on a temporary or permanent basis in exchange for monetary compensation.
- The necessity to restore stream flows by putting water back into the stream has been recognized by a watershed planning group and/or state Fish and Wildlife, affected tribes and federal Marine Fisheries (NMFS) and Fish and Wildlife (USFWS) services.

2. Information used to target/prioritize rivers, streams and stream reaches

The rivers, streams and stream reaches are identified and prioritized using:

- Limiting factors analysis conducted by the Washington Conservation Commission, watershed groups, tribes and/or state and federal agencies.
- Watershed assessment produced by watershed planning units.
- Stream flow gauge data provided by the U.S. Geological Survey, U.S. Forest Service and U.S. Bureau or Reclamation, Ecology, irrigation districts, public utility districts and other agencies and tribes.
- Instream Flow studies, such as Instream Flow Incremental Methodology (IFIM).
- Assessments of existing, and expected habitat conditions to determine its suitability to provide for salmon recovery in the event that additional stream flows are provided. Fish

barrier and screen inventories conducted by state Department of Fish and Wildlife (WDFW) and other agencies may also be reviewed.
- Other fish assemblage and inventory data conducted by tribal, state, or federal resource agencies

3. Methodology for targeting/prioritizing rivers, streams and stream reaches
The methodology used to establish prioritization for water rights acquisitions within streams in critical basins considered:

- **Number of salmon species listed** as threatened or endangered under the federal Endangered Species Act.
- **Status of the various salmonid stocks present as designated by SASSI.** Stocks were assigned progressively higher values based on their status. Salmon stocks designated as having "critical" or "depressed" status were assigned higher values than those designated as being healthy.
- **Existing habitat conditions within the stream and/or reaches** as determined by Limiting Factor Analysis (LFA) conducted by the Washington Conservation Commission and other habitat inventory data. Five habitat parameters within each stream were assigned condition ranking indices of "poor," "fair," "good," or "excellent" which were then assigned corresponding values between one and four, with poor being assigned a "1." The higher the total ranking of all habitat parameters, the higher the overall stream rank. Streams with equivalent species assemblages and size, supporting healthy habitat, ranked higher.
- **Estimate of the time period that stream flows are determined to be inadequate.** Streams determined to be suffering low flow conditions a higher proportion of the time during summer, were ranked higher than those only occasionally suffering low-flow conditions.
- **Mean flows of the stream between June 1 and Sept. 30.** Stream prioritization was roughly inversely proportional to their mean stream flows between June 1 and Sept. 30. Thus, small, tributary streams with low flows generally received higher priority than larger streams. Research indicates that fish benefits are generally better realized by restoring multiple small streams rather than attempting to restore flows in one or two large streams. Small streams can benefit significantly from relatively small increases in stream flow. However, some larger streams supporting large number of endangered or threatened species actually ranked higher than smaller streams.

The prioritization was provided by state Department of Fish and Wildlife in collaboration with regional water resources staff and watershed leads. Streams and reaches receiving the highest possible rankings were small, tributary streams that support at-risk species and possess relatively good or excellent habitat conditions.

List and maps outlining the prioritized rivers and streams are contained in **Appendix II**. The first maps are "coarse" level. Additional information will be collected and reviewed to specifically identify the biological needs of salmon populations and potential water-right holders (names, addresses, types of crops raised, historic water use, etc.). Staff will also consult with watershed planning units, salmon recovery boards, American Indian tribes, conservation districts and federal agencies (NMFS, USFWS, U. S. Forest Service (USFS), U. S. Bureau of Reclamation (USBR) and others). More "refined" products will be produced later after the consultation and coordination with key stakeholders.

For maps of priority rivers and streams within each of the 16 basins and a more detailed description of the functions utilized for prioritization of streams for water acquisition, see **Appendix II.**

III. Selecting and approving water acquisition proposals

1. Minimum criteria for selecting and approving projects

At a minimum, and prior to acquiring water rights through purchases, leases or other means the following will be required:

- Sufficient documentation on the water right is available to allow Ecology to make a tentative determination as to the extent and validity of the water right considered for acquisition (e.g., the water right was put to use in the previous five years.)
- The water right has a sufficiently early priority date and can be protected from water withdrawals by other water-right holders for a sufficient stream reach so as to provide increased flows for salmonids throughout a significant proportion of a critical stream reach.
- The acquisition provides benefit (short and long term) in achieving stream flow requirements for fish.

2. Preference criteria for selecting and approving acquisition proposals

In addition to the minimum criteria listed above, the following criteria will also be considered when giving preference to water rights acquisition proposals:

- The acquisition provides other benefits such as decrease in stream temperature; creation of off-channel habitats; and rejuvenating riparian vegetation.
- The water right is reasonably priced within the context of the local market for water.
- The acquisition has received a broad level of support among interested parties.
- The acquisition can be accomplished within a reasonable time period.
- The acquisition can be accomplished with partial funding from other sources.
- The acquisition can be done with minimum administrative costs.

3. No purchase or lease will be done if:

- An acquisition requires the encumbrance of future legislation. Acquisition must be done within existing state law.
- Water rights will not measurably increase stream surface flows.
- Water rights are interruptible, subject to regulation to protect minimum flows established by rule.
- Inchoate or unperfected water “rights” will not be considered for acquisition.